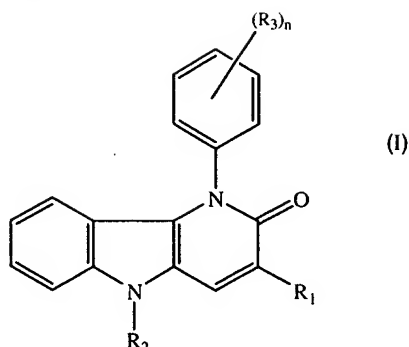


CLAIMS

1. A compound of formula (I)



its *N*-oxide, salt, stereoisomeric form, racemic mixture, prodrug, ester or metabolite, wherein

5

n is 1, 2 or 3;

*R*₁ is hydrogen, cyano, halo, aminocarbonyl, hydroxycarbonyl, C₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, arylaminocarbonyl, *N*-(aryl)-*N*-(C₁₋₄alkyl)aminocarbonyl, methanimidamidyl,

10

N-hydroxy-methanimidamidyl, mono- or di(C₁₋₄alkyl)methanimidamidyl, Het₁ or Het₂;

*R*₂ is hydrogen, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₃₋₇cycloalkyl, wherein said C₁₋₁₀alkyl, C₂₋₁₀alkenyl and C₃₋₇cycloalkyl, each individually and independently, may be optionally substituted with a substituent selected from the group consisting of

15 cyano, NR_{4a}R_{4b}, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, thiomorpholinyl, 1-oxothiomorpholinyl, 1,1-dioxo-thiomorpholinyl, aryl, furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, tetrazolyl, pyridyl, pyrimidinyl, pyrazinyl, pyridazinyl, triazinyl, hydroxy-

20 carbonyl, C₁₋₄alkylcarbonyl, N(R_{4a}R_{4b})carbonyl, C₁₋₄alkyloxycarbonyl, pyrrolidin-1-ylcarbonyl, piperidin-1-ylcarbonyl, homopiperidin-1-ylcarbonyl, piperazin-1-ylcarbonyl, 4-(C₁₋₄alkyl)-piperazin-1-ylcarbonyl, morpholin-1-ylcarbonyl, thiomorpholin-1-ylcarbonyl, 1-oxothiomorpholin-1-ylcarbonyl and 1,1-dioxo-thiomorpholin-1-ylcarbonyl;

25

*R*₃ is nitro, cyano, amino, halo, hydroxy, C₁₋₄alkyloxy, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkyloxycarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, C₁₋₄alkylcarbonyl, methanimidamidyl, mono- or di(C₁₋₄alkyl)methanimidamidyl, *N*-hydroxy-methanimidamidyl or Het₁;

30

*R*_{4a} is hydrogen, C₁₋₄alkyl or C₁₋₄alkyl substituted with a substituent selected from the group consisting of amino, mono- or di(C₁₋₄alkyl)amino, pyrrolidinyl, piperidinyl,

- homopiperidinyl, piperazinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, thiomorpholinyl, 1-oxothiomorpholinyl and 1,1-dioxo-thiomorpholinyl;
- R_{4b} is hydrogen, C₁₋₄alkyl or C₁₋₄alkyl substituted with a substituent selected from the group consisting of amino, mono- or di(C₁₋₄alkyl)amino, pyrrolidinyl, piperidinyl, 5 homopiperidinyl, piperazinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, thiomorpholinyl, 1-oxothiomorpholinyl and 1,1-dioxo-thiomorpholinyl;
- aryl is phenyl optionally substituted with one or more substituents each individually selected from the group consisting of C₁₋₆alkyl, C₁₋₄alkoxy, halo, hydroxy, amino, trifluoromethyl, cyano, nitro, hydroxyC₁₋₆alkyl, cyanoC₁₋₆alkyl, mono- or 10 di(C₁₋₄alkyl)amino, aminoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₄alkyl;
- Het₁ is a 5-membered ring system wherein one, two, three or four ring members are heteroatoms each individually and independently selected from the group consisting of nitrogen, oxygen and sulfur, and wherein the remaining ring members are carbon atoms; and, where possible, any nitrogen ring member may 15 optionally be substituted with C₁₋₄alkyl; any ring carbon atom may, each individually and independently, optionally be substituted with a substituent selected from the group consisting of C₁₋₄alkyl, C₂₋₆alkenyl, C₃₋₇cycloalkyl, hydroxy, C₁₋₄alkoxy, halo, amino, cyano, trifluoromethyl, hydroxyC₁₋₄alkyl, cyanoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)amino, aminoC₁₋₄alkyl, mono- or 20 di(C₁₋₄alkyl)aminoC₁₋₄alkyl, arylC₁₋₄alkyl, aminoC₂₋₆alkenyl, mono- or di(C₁₋₄alkyl)aminoC₂₋₆alkenyl, furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, tetrazolyl, aryl, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkyloxycarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, C₁₋₄alkylcarbonyl, oxo, thio; and wherein any of the 25 foregoing furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl and triazolyl moieties may optionally be substituted with C₁₋₄alkyl;
- Het₂ is pyridyl, pyrimidinyl, pyrazinyl, pyridazinyl or triazinyl, wherein any ring carbon atom of each of said 6-membered nitrogen containing aromatic rings may 30 optionally be substituted with a substituent selected from the group consisting of C₁₋₄alkyl;
- provided that the compound of formula (I) is different from
- 2,5-dihydro-1-(4-nitrophenyl)-2-oxo-1H-pyrido[3,2-b]indole-3-carbonitrile, and
- 2,5-dihydro-5-methyl-1-(4-nitrophenyl)-2-oxo-1H-pyrido[3,2-b]indole-3-carbonitrile. 35
2. A compound according to claim 1 wherein n is 1, R₃ is nitro, R₁ is cyano, C₁₋₄alkyloxycarbonyl or C₁₋₄alkylaminocarbonyl; and R₂ is hydrogen or C₁₋₆alkyl.

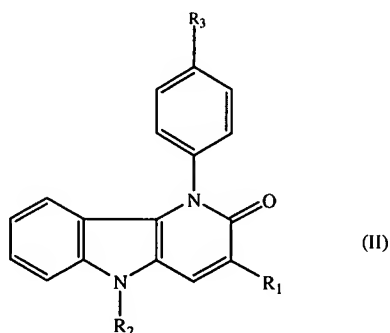
3. A compound according to claim 1 or 2 wherein
n is 1 or 2;
R₃ is nitro, cyano, amino, halo, hydroxy, C₁₋₄alkyloxy, hydroxycarbonyl,
aminocarbonyl, aminothiocarbonyl, C₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyl,
5 mono- or di(C₁₋₄alkyl)methanimidamidyl, *N*-hydroxy-methanimidamidyl or Het₁.
4. A compound according to any one of claims 1 to 3 wherein
R₁ is hydrogen, cyano, halo, aminocarbonyl, hydroxycarbonyl, C₁₋₄alkyloxycarbonyl,
arylamino carbonyl, *N*-hydroxy-methanimidamidyl, mono- or di(C₁₋₄alkyl)-
10 methanimidamidyl, Het₁ or Het₂; and
aryl is phenyl optionally substituted with one or more substituents each individually
selected from the group consisting of C₁₋₆alkyl, C₁₋₄alkoxy, cyano, nitro; and
Het₁ is a 5-membered ring system wherein one, two, three or four ring members are
heteroatoms each individually and independently selected from the group consisting
15 of nitrogen, oxygen and sulfur, and wherein the remaining ring members are carbon
atoms; and, where possible, any nitrogen ring member may optionally be
substituted with C₁₋₄alkyl; any ring carbon atom may, each individually and
independently, optionally be substituted with a substituent selected from the group
consisting of C₁₋₄alkyl, C₃₋₇cycloalkyl, halo, cyano, trifluoromethyl, cyanoC₁₋₄alkyl,
20 mono- or di(C₁₋₄alkyl)amino, mono- or di(C₁₋₄alkyl)aminoC₂₋₆alkenyl, isoxazolyl,
aryl, hydroxycarbonyl, C₁₋₄alkyloxycarbonyl, oxo, thio; and wherein the foregoing
isoxazolyl may optionally be substituted with C₁₋₄alkyl; and
Het₂ is pyridyl.
- 25 5. A compound according to any one of claims 1 to 4 wherein
R₂ is hydrogen, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₃₋₇cycloalkyl or C₁₋₁₀alkyl substituted with
substituent selected from the group consisting of cyano, NR_{4a}R_{4b}, pyrrolidinyl,
piperidinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, aryl, imidazolyl, pyridyl,
hydroxycarbonyl, N(R_{4a}R_{4b})carbonyl, C₁₋₄alkyloxycarbonyl or 4-(C₁₋₄alkyl)-
30 piperazin-1-ylcarbonyl; and
R_{4a} is C₁₋₄alkyl; and
R_{4b} is C₁₋₄alkyl or C₁₋₄alkyl substituted morpholinyl.
6. A compound according to any one of claims 1 to 5 wherein
35 R₂ is hydrogen, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₃₋₇cycloalkyl or C₁₋₁₀alkyl substituted with
substituent selected from the group consisting of cyano, NR_{4a}R_{4b}, pyrrolidinyl,
piperidinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, aryl, imidazolyl, pyridyl,

- hydroxycarbonyl, N(R_{4a}R_{4b})carbonyl, C₁₋₄alkyloxycarbonyl or 4-(C₁₋₄alkyl)-piperazin-1-ylcarbonyl; and
- aryl is phenyl optionally substituted with one or more substituents each individually selected from the group consisting of C₁₋₆alkyl, C₁₋₄alkoxy, cyano, nitro.
- 5
7. A compound according to any one of claims 1 to 6 wherein
- R₂ is hydrogen, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₃₋₇cycloalkyl or C₁₋₁₀alkyl substituted with substituent selected from the group consisting of cyano, NR_{4a}R_{4b}, pyrrolidinyl, piperidinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, aryl, imidazolyl, pyridyl,
- 10 hydroxycarbonyl, N(R_{4a}R_{4b})carbonyl, C₁₋₄alkyloxycarbonyl or 4-(C₁₋₄alkyl)-piperazin-1-ylcarbonyl; and
- aryl is phenyl optionally substituted with one or more substituents each individually selected from the group consisting of C₁₋₆alkyl, C₁₋₄alkoxy, cyano, nitro; and
- R_{4a} is C₁₋₄alkyl; and
- 15 R_{4b} is C₁₋₄alkyl or C₁₋₄alkyl substituted morpholinyl.
8. A compound according to any one of claims 1 to 7 wherein
- R₃ is nitro, cyano, amino, halo, hydroxy, C₁₋₄alkyloxy, hydroxycarbonyl, amino-carbonyl, aminothiocarbonyl, C₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyl, mono- or
- 20 di(C₁₋₄alkyl)methanimidamidyl, *N*-hydroxy-methanimidamidyl or Het₁; and
- Het₁ is a 5-membered ring system wherein one, two, three or four ring members are heteroatoms each individually and independently selected from the group consisting of nitrogen, oxygen and sulfur, and wherein the remaining ring members are carbon atoms; and, where possible, any nitrogen ring member may optionally be
- 25 substituted with C₁₋₄alkyl; any ring carbon atom may, each individually and independently, optionally be substituted with a substituent selected from the group consisting of C₁₋₄alkyl, C₃₋₇cycloalkyl, halo, cyano, trifluoromethyl, cyanoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)amino, mono- or di(C₁₋₄alkyl)aminoC₂₋₆alkenyl, isoxazolyl, aryl, hydroxycarbonyl, C₁₋₄alkyloxycarbonyl, oxo, thio; and wherein the foregoing
- 30 isoxazolyl may optionally be substituted with C₁₋₄alkyl.
9. A compound according to any one of claims 1 to 8 wherein
- n is 1 or 2, more in particular wherein n is 1; and
- R₁ is hydrogen, cyano, halo, aminocarbonyl, hydroxycarbonyl, C₁₋₄alkyloxycarbonyl,
- 35 arylaminocarbonyl, *N*-hydroxy-methanimidamidyl, mono- or di(C₁₋₄alkyl)-methanimidamidyl, Het₁ or Het₂; and
- R₂ is hydrogen, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₃₋₇cycloalkyl or C₁₋₁₀alkyl substituted with substituent selected from the group consisting of cyano, NR_{4a}R_{4b}, pyrrolidinyl,

piperidinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, aryl, imidazolyl, pyridyl, hydroxycarbonyl, N(R_{4a}R_{4b})carbonyl, C₁₋₄alkyloxycarbonyl or 4-(C₁₋₄alkyl)-piperazin-1-ylcarbonyl; and

- 5 R₃ is nitro, cyano, amino, halo, hydroxy, C₁₋₄alkoxy, hydroxycarbonyl, aminocarbonyl, aminothiocarbonyl, C₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyl, mono- or di(C₁₋₄alkyl)methanimidamidyl, *N*-hydroxy-methanimidamidyl or Het₁.

10. A compound according to any one of claims 1 to 9 wherein the compound has the formula (II).



10

11. A compound according to any one of claims 1 to 10 wherein R₃ is nitro.

12. A compound according to any one of claims 1 to 11 wherein R₁ is cyano.

15

13. A compound according to any one of claims 1 to 12 wherein R₁ is C₁₋₄alkyloxycarbonyl or C₁₋₄alkylaminocarbonyl.

14. A compound according to any one of claims 1 to 13 wherein R₂ is C₂₋₆alkyl.

20

15. A compound according to any one of claims 1 to 14 wherein the compound is n is 1,

R₁ is cyano, halo or oxadiazolyl optionally substituted with a substituent selected from the group consisting of C₁₋₄alkyl, C₂₋₆alkenyl, C₃₋₇cycloalkyl, hydroxy, C₁₋₄alkoxy, amino, cyano, trifluoromethyl, hydroxyc₁₋₄alkyl, cyanoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)amino, aminoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₄alkyl, arylC₁₋₄alkyl, aminoC₂₋₆alkenyl, mono- or di(C₁₋₄alkyl)aminoC₂₋₆alkenyl, furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, tetrazolyl, aryl, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkyloxycarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, C₁₋₄alkylcarbonyl, oxo, thio; and wherein any of the foregoing furanyl, thienyl, pyrrolyl,

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oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl and triazolyl moieties may optionally be substituted with C₁₋₄alkyl;
R₂ is C₁₋₆alkyl, hydrogen, C₂₋₆alkenyl,
R₃ is nitro, C₁₋₆alkyl optionally substituted with piperidinyl, pyrrolidinyl, N(R_{4a}R_{4b}),
5 morpholinyl, pyridyl, cyano, 4-(C₁₋₄alkyl)-piperazin-1-yl.

16. A compound according to claim 1 wherein the compound is

1-(4-Nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-Methyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-Isobutyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-Allyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-Butyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-Ethyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-(2-Morpholin-4-yl-ethyl)-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
5-Methyl-1-(4-nitro-phenyl)-1,5-dihydro-pyrido[3,2-b]indol-2-one;
5-But-3-enyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
1-(4-Nitro-phenyl)-2-oxo-5-(2-pyrrolidin-1-yl-ethyl)-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
1-(4-Nitro-phenyl)-2-oxo-5-(2-piperidin-1-yl-ethyl)-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
5-(3-Dimethylamino-propyl)-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
3-Bromo-5-methyl-1-(4-nitro-phenyl)-1,5-dihydro-pyrido[3,2-b]indol-2-one
5-Methyl-1-(3-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
1-(4-Nitro-phenyl)-2-oxo-5-(3-piperidin-1-yl-propyl)-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
5-(4-Morpholin-4-yl-butyl)-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
1-(4-Nitro-phenyl)-2-oxo-5-(4-pyrrolidin-1-yl-butyl)-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;
5-[3-(4-Methyl-piperazin-1-yl)-propyl]-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-Cyanomethyl-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;
5-(3-Morpholin-4-yl-propyl)-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]-

indole-3-carbonitrile;

1-(4-Nitro-phenyl)-2-oxo-5-(4-piperidin-1-yl-butyl)-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;

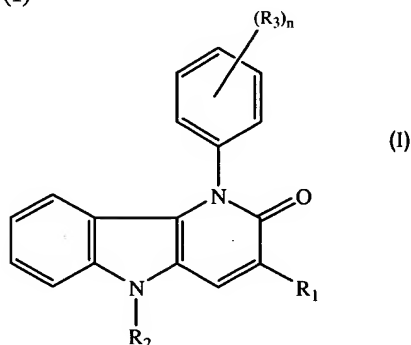
5-(4-Dimethylamino-butyl)-1-(4-nitro-phenyl)-2-oxo-2,5-dihydro-1H-pyrido[3,2-b]-indole-3-carbonitrile;

1-(4-Nitro-phenyl)-2-oxo-5-pyridin-4-ylmethyl-2,5-dihydro-1H-pyrido[3,2-b]indole-3-carbonitrile;

3-(5-tert-Butyl-[1,2,4]oxadiazol-3-yl)-5-methyl-1-(4-nitro-phenyl)-1,5-dihydro-pyrido[3,2-b]indol-2-one;

5-Methyl-1-(4-nitro-phenyl)-3-(5-trifluoromethyl-[1,2,4]oxadiazol-3-yl)-1,5-dihydro-pyrido[3,2-b]indol-2-one; or an N-oxide, salt or stereoisomer thereof.

17. A compound of formula (I)



its *N*-oxide, salt, stereoisomeric form, racemic mixture, prodrug, ester or metabolite, wherein

5

n is 1, 2 or 3;

*R*₁ is hydrogen, cyano, halo, aminocarbonyl, hydroxycarbonyl, C₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, arylaminocarbonyl, *N*-(aryl)-*N*-(C₁₋₄alkyl)aminocarbonyl, methanimidamidyl, *N*-hydroxy-methanimidamidyl, mono- or di(C₁₋₄alkyl)methanimidamidyl, Het₁ or Het₂;

10

*R*₂ is hydrogen, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, C₃₋₇cycloalkyl, wherein said C₁₋₁₀alkyl, C₂₋₁₀alkenyl and C₃₋₇cycloalkyl, each individually and independently, may be optionally substituted with a substituent selected from the group consisting of cyano, NR_{4a}R_{4b}, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, thiomorpholinyl, 1-oxothiomorpholinyl, 1,1-dioxo-thiomorpholinyl, aryl, furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, tetrazolyl, pyridyl, pyrimidinyl, pyrazinyl, pyridazinyl, triazinyl, hydroxycarbonyl, C₁₋₄alkylcarbonyl, N(R_{4a}R_{4b})carbonyl, C₁₋₄alkyloxycarbonyl, pyrrolidin-1-yl-carbonyl, piperidin-1-ylcarbonyl, homopiperidin-1-ylcarbonyl, piperazin-1-yl-

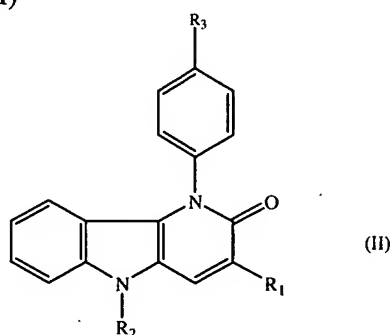
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- carbonyl, 4-(C₁₋₄alkyl)-piperazin-1-ylcarbonyl, morpholin-1-ylcarbonyl, thiomorpholin-1-ylcarbonyl, 1-oxothiomorpholin-1-ylcarbonyl and 1,1-dioxo-thiomorpholin-1-ylcarbonyl;
- 5 R₃ is nitro, cyano, amino, halo, hydroxy, C₁₋₄alkyloxy, hydroxycarbonyl, amino-carbonyl, C₁₋₄alkyloxycarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, C₁₋₄alkyl-carbonyl, methanimidamidyl, mono- or di(C₁₋₄alkyl)methanimidamidyl, *N*-hydroxy-methanimidamidyl or Het₁;
- 10 R_{4a} is hydrogen, C₁₋₄alkyl or C₁₋₄alkyl substituted with a substituent selected from the group consisting of amino, mono- or di(C₁₋₄alkyl)amino, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, thiomorpholinyl, 1-oxothiomorpholinyl and 1,1-dioxo-thiomorpholinyl;
- 15 R_{4b} is hydrogen, C₁₋₄alkyl or C₁₋₄alkyl substituted with a substituent selected from the group consisting of amino, mono- or di(C₁₋₄alkyl)amino, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, 4-(C₁₋₄alkyl)-piperazinyl, morpholinyl, thiomorpholinyl, 1-oxothiomorpholinyl and 1,1-dioxo-thiomorpholinyl;
- aryl is phenyl optionally substituted with one or more substituents each individually selected from the group consisting of C₁₋₆alkyl, C₁₋₄alkoxy, halo, hydroxy, amino, trifluoromethyl, cyano, nitro, hydroxyC₁₋₆alkyl, cyanoC₁₋₆alkyl, mono- or di(C₁₋₄alkyl)amino, aminoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₄alkyl;
- 20 Het₁ is a 5-membered ring system wherein one, two, three or four ring members are heteroatoms each individually and independently selected from the group consisting of nitrogen, oxygen and sulfur, and wherein the remaining ring members are carbon atoms; and, where possible, any nitrogen ring member may optionally be substituted with C₁₋₄alkyl; any ring carbon atom may, each individually and
- 25 independently, optionally be substituted with a substituent selected from the group consisting of C₁₋₄alkyl, C₂₋₆alkenyl, C₃₋₇cycloalkyl, hydroxy, C₁₋₄alkoxy, halo, amino, cyano, trifluoromethyl, hydroxyC₁₋₄alkyl, cyanoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)amino, aminoC₁₋₄alkyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₄alkyl, arylC₁₋₄alkyl, aminoC₂₋₆alkenyl, mono- or di(C₁₋₄alkyl)aminoC₂₋₆alkenyl, furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, tetrazolyl, aryl, hydroxycarbonyl,
- 30 aminocarbonyl, C₁₋₄alkyloxycarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, C₁₋₄alkylcarbonyl, oxo, thio; and wherein any of the foregoing furanyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl and triazolyl moieties may optionally be substituted with
- 35 C₁₋₄alkyl;
- Het₂ is pyridyl, pyrimidinyl, pyrazinyl, pyridazinyl or triazinyl, wherein any ring carbon atom of each of said 6-membered nitrogen containing aromatic rings may

optionally be substituted with a substituent selected from the group consisting of C₁₋₄alkyl;
for use as a medicine.

- 5 18. A compound as described in claim 17 for use as a medicine wherein
R₁ is cyano, C₁₋₄alkyloxycarbonyl or C₁₋₄alkylaminocarbonyl;
R₂ is hydrogen or C₁₋₆alkyl;

- 10 19. A compound as described in claim 17 or 18 for use as a medicine wherein the
compound has the formula (II)



for use as a medicine.

- 15 20. A compound as described in any one of claim 17 to 19 wherein R₁ is cyano, methyloxycarbonyl, methylaminocarbonyl, ethylaminocarbonyl, ethyloxycarbonyl.
21. A compound as described in any one of claim 17 to 20 wherein R₂ is hydrogen or methyl.
- 20 22. A compound as described in any one of claim 17 to 21 wherein R₁ is cyano and R₂ is hydrogen or methyl.
- 25 23. Use of a compound of formula (I) as defined in any one of claims 17 to 22 for the manufacture of a medicament for preventing, treating or combating infection or disease associated with infection with HIV virus.
24. Use of a compound of formula (I) as defined in any one of claims 17 to 22 for the manufacture of a medicament for inhibiting the replication of HIV virus.
- 30 25. Use of a compound of formula (I) according to claim 23 or 24 characterized in that the reverse transcriptase of the HIV virus is mutant.

26. A pharmaceutical composition, comprising an effective amount of at least one compound of formula (I) as defined in any one of claims 1 to 17 and a pharmaceutically tolerable excipient.

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27. A product containing at least one compound of formula (I) as defined in any one of claims 1 to 17 and an antiretroviral agent as a combined preparation for the simultaneous, separate or sequential use in antiretroviral therapy.